

Source Water Assessment Report



Public Water Supply: EMPORIA, CITY OF

**Assessment Areas Include:
979**



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Reports were generated with the Automated Source Water Assessment Tool (ASWAT). Assessments were completed online using ASWAT by hundreds of state employees, public water supply staff, and technical assistant providers throughout the State of Kansas.

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Report Description

Detailed Explanation of Entire Report:

The 1996 amendments to the Safe Drinking Water Act require each state to develop a Source Water Assessment Program (SWAP) and a Source Water Assessment (SWA) for each Public Water Supply (PWS) that treats and distributes raw source water. In Kansas there are 761 public water supplies that require SWAs. A SWA includes a delineation of the source water assessment area, an inventory of potential contaminant sources, and a susceptibility analysis.

A PWS can consist of one or more individual assessment areas that require different assessments. In general, an assessment area is delineated at a two-mile fixed radius for a groundwater well. A surface water intake assessment area is the upstream-drainage area (watershed), inside the state border. Additionally, an assessment area can consist of an individual well, group of wells, an individual surface water intake, or multiple surface water intakes.

After each assessment is completed a report is automatically generated using an Internet-based application called the Automated Source Water Assessment Tool (ASWAT). The individual assessment reports combine to form the entire SWA report for a PWS.

A map of each Assessment Area was also generated with ASWAT. However, for security reasons the maps are not included in this report. To obtain a copy of the map(s), please contact your local PWS.

All PWS reports will be available for viewing and downloading on KDHE's Watershed Management Section website(<http://www.kdhe.state.ks.us/nps>) in 2004.

EMPORIA, CITY OF Summary:

AA	Type	Diversion Id
979	Surface water single intake	999

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**
Diversion Id's: **999**
Status: **Accepted**
Submit Date: **2002-10-03 11:00:27**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**

Susceptibility Likelihood Scores for Assessment Area

	A	B	B1	B2	C	C*	D
Susceptibility Likelihood Score – SLS	49	49	59	58	52	58	54
SLS Range	Low	Low	Mid	Mid	Mid	Mid	Mid

A – Microbiological

B2 – Sedimentation

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

B1 – Eutrophication – Phosphorous

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

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Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
160342	General Farm, Primarily Crop	191	B
159422	Veterinary Services, Specialties	742	B
159423	Veterinary Services, Specialties	742	B
159244	Single-family Housing Construction	1521	B
159245	Single-family Housing Construction	1521	B
159230	Nonresidential Construction	1542	B
159434	Nonresidential Construction	1542	B
159459	Highway and Street Construction	1611	B
159199	Prepared Feeds For Animals and Fowls	2048	B
159365	Newspapers Publishing and Printing	2711	B
159226	Plastics products Manufacturing	3089	B
159227	Ready-mix Concrete Plant	3273	B
159458	Sheet Metal Work Manufacturing	3444	B
159200	Machinery, Except Electrical Manufacturing	3599	B
159305	Local Trucking, without Storage	4212	B
159424	Local Trucking, without Storage	4212	B
159229	Farm Product Warehousing and Storage	4221	B

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
159259	Gasoline Service Station	5541	B
159267	Gasoline Service Station	5541	B
159461	Gasoline Service Station	5541	B
159433	Sporting and Recreational Camps	7032	B
159272	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	B
159418	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	B
159239	Auto Truck Repair Service	7538	B
159294	Auto Truck Repair Service	7538	B
159374	Auto Truck Repair Service	7538	B
159251	Car Wash	7542	B
159255	Repair Services, Nec	7699	B
159443	Animal Specialty Services	752	C
159450	Animal Specialty Services	752	C
159439	Nonresidential Construction	1542	C
158753	Scrap and Waste Materials	5093	C
159213	Mobile Home Park	6515	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2000802	Bacon, Dan	A-NEMR-S004	B

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2000985	Swenson, Mike	A-NEWB-SA01	B
2001151	Rk Cattle Company	A-NEMR-BA10	B
2001504	Sigle 6 Bar Ranch	A-NEMR-BA03	B
2002712	Hinchman Ranch	A-NEMR-C002	B
2001107	C.h. White Sons	A-NEMR-BA06	C
2001296	C.h. White Sons-droll Lots	A-NEMR-BA04	C
2001469	2 B Ranch	A-NEMR-BA07	C
2001472	2 B Ranch	A-NEMR-BA08	C
2001580	C.h. White Sons	A-NEMR-BA05	C
2002178	Leffler Farms, Inc.	A-NELY-BA05	C
2002357	Gant, Kevin	A-NEMR-BD01	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000164	Casey Oil	01995	B
3000165	Hillside Gardens	02001	B

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000493	Usd 417, Council Grove	05987	B
3000791	Morris Co Hwy Dept	07884	B
3000828	Coastal Mart #2531	08646	B
3000941	Adams 66	11196	B
3001004	Council Grove Airport	13050	B
3001060	H R Sales	15125	B
3001061	Haeker Standard Service	15144	B
3001071	Caseys	15479	B
3001152	Neosho Construction	18180	B
3001280	Us Army Corp, Council Grove Lake	23261	B
3002101	Bolton Chrysler Plymouth	28571	B
3002285	Williams Fertilizer	29485	B
3002346	Upr, Commun. Tower	29751	B
3002466	Upr, Wilsey	80014	B
3002653	Fairmont Building	81187	B
3001736	Kdot, Council Grove	26666	C

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000802	WILSEY GROUNDWATER CONTAMINATION	C506470362	B
7000804	COUNCIL GROVE SATELLITE POW CAMP (FORMER)	C506471314	B

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000434	FORBES S-5 SITE	C305603017	C

Regulated Solid Waste Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
5000096	Morris County Transfer Station	0130-S	B

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000831	HAMM – LOOMIS QRY #91	I-NE17-PO02	B
6001582	LAKE KAHOLA WWTF	M-NE02-NO01	B
6001600	COUNCIL GROVE MWTP	M-NE17-IO01	B
6001667	WILSEY	M-NE69-OO01	B
6000189	QUALITY PROFILE SERVICES	I-NE17-CO01	C

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Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **EMPORIA, CITY OF**
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Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
Did Not Add Any Site Sources			

Public Water Supply: **EMPORIA, CITY OF**
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Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **EMPORIA, CITY OF**
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Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Sedimentation	Pesticides	IOC's	SOC's	VOC's	E – P
8	11	2	24	3	15	8

A – Microbiological

B2 – Sedimentation

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

B1 – Eutrophication – Phosphorous

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Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological	B – Inorganic Compounds	B1 – Eutrophication – Phosphorous
B2 – Sedimentation	B* – Nitrates	C – Synthetic Organic Compounds
C* – Pesticides	D – Volatile Organic Compounds	

Potential Contaminants Listing

Public Water Supply: **EMPORIA, CITY OF**
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Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	B
"	"	"	D
7542	Car Wash	Inorganics, VOCs	B
"	"	"	B1
"	"	"	B2
"	"	"	D
5541	Gasoline Service Station	Inorganics, VOCs	B
"	"	"	D
1611	Highway and Street Construction	Sedimentation	B2
4212	Local Trucking, without Storage	VOCs	D
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	B
"	"	"	D
6515	Mobile Home Park	Sanitary wastes, Fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B*
1542	Nonresidential Construction	Sedimentation	B2

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
3089	Plastics products Manufacturing	inorganics, VOCs	B
"	"	"	D
3273	Ready-mix Concrete Plant	Minerals and TSS	B
5093	Scrap and Waste Materials	Metals, TSS	B
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	B
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	B
"	"	"	D
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	A
"	"	"	B
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
4221	Farm Product Warehousing and Storage	TSS, VOCs	B
"	"	"	D
191	General Farm, Primarily Crop	fertilizers, Pesticides	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C*
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
2048	Prepared Feeds For Animals and Fowls	Sanitary, Nitrates, phosphorous and pesticides	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C*
7699	Repair Services, Nec	inorganics	B

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Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **EMPORIA, CITY OF**
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Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
7542	Car Wash	Inorganics, VOCs	Install and maintain sediment and grease traps where appropriate	40 CFR 442
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA
1611	Highway and Street Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
4212	Local Trucking, without Storage	VOCs	Discharge to a POTW	State or federal Storm water pollution prevention regulations
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
6515	Mobile Home Park	Sanitary wastes, Fertilizers	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
3089	Plastics products Manufacturing	inorganics, VOCs	Pre–treat wastewater prior to discharge. Minimize outdoor storage and control storm water runoff.	40 CFR 463 and State or federal Storm water pollution prevention regulations
3273	Ready–mix Concrete Plant	Minerals and TSS	Minimize outdoor storage and control storm water runoff.	State or federal Storm water pollution prevention regulations
5093	Scrap and Waste Materials	Metals, TSS	Minimize contact with storm water	State or federal Storm water pollution prevention regulations
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	Minimize outdoor storage and control storm water runoff. Pre–treat process wastewater prior to discharge to POTW	40 CFR 464 and State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28-48, KDHE, KDEM
7032	Sporting and Recreational Camps	sanitary, fertilizers, pesticides	Discharge to POTW. Minimize use of lawn chemicals	KAR 28-5
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly	NA
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	Discharge to POT	NA
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
4221	Farm Product Warehousing and Storage	TSS, VOCs	Keep the area clean of grain. Use grease traps.	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
191	General Farm, Primarily Crop	fertilizers, Pesticides	Maintain good erosion control practices and minimize the use of chemicals	NA
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
2048	Prepared Feeds For Animals and Fowls	Sanitary, Nitrates, phosphorous and pesticides	Maintain animal feeding areas and feed storage areas to minimize contact with storm water. Collect and treat process wastes.	40 CFR 412 and State or federal Storm water pollution prevention regulations
7699	Repair Services, Nec	inorganics	Discharge to POTW	NA

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Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**

Surface Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds

B1 – Eutrophication – Phosphorous

B2 – Sedimentation **C** – Synthetic Organic Compounds

C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B1	B2	C	C*	D
1	Is the intake located at a treatment plant?	No	1	1	0	0	1	1	1
2	Is there an open channel conveyance from the intake to the treatment plant?	No	0	0	0	0	0	0	0
3	Does a PWS own or control the conveyance right-of-way?	Yes	0	0	0	0	0	0	0
4	Does a PWS own or control the area within 1/4 mile of intake?	No	1	1	0	0	1	1	1
5	Is the area within 1/4 mile of the intake entirely native grass?	No	1	1	0	0	1	1	1
6	Is transportation infrastructure in close proximity to the intake?	Yes	0	1	0	0	1	1	1
7	Are there water quality protection plans for the transportation infrastructure?	No	0	1	0	0	1	1	1
8	Are any commercial, industrial, or urban areas present?	No	0	0	0	0	0	0	0
9	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0	0
10	Is riparian area vegetated?	Yes	0	0	0	0	0	0	0
11	Has riparian area been farmed up to the stream/riverbank?	Yes	0	0	0	0	0	1	0
12	Is there a lack of native grass or trees?	No	0	0	0	0	0	1	0
13	Is livestock use present in riparian area?	Yes	1	0	0	0	0	1	0
14	Are any confined livestock production sites in riparian area?	Yes	1	0	0	0	0	1	0
15	Is each confinement area registered with KDHE?	Yes	0	0	0	0	0	0	0
16	Are any row crops (corn, milo, soybean) present?	Yes	0	0	0	0	0	1	0
17	Are water quality protection plans in use for each cropland?	No	0	0	0	0	0	1	1

No.	Question	Response	A	B	B1	B2	C	C*	D
18	Are any orchards present?	No	0	0	0	0	0	0	0
19	Are water quality protection plans in use for each orchard?	Yes	0	0	0	0	0	0	0
20	Is the intake a river intake?	Yes	1	1	0	1	1	1	1
21	Is the intake at a city-owned lake?	No	1	1	1	1	1	1	1
22	Is there water quality monitoring conducted at the river or lake?	Yes	0	0	0	0	0	0	0
23	Is TMDL needed for any of the rivers or lakes?	No	0	0	0	0	0	0	0
24	Are TMDL pollutants of concern reported by monitoring?	Yes	0	0	0	0	0	0	0
25	Are any point source discharges within 16 miles upstream of intake?	No	0	0	0	0	0	0	0
26	Is pretreatment required at any of the point sources?	No	0	0	0	0	0	0	0
27	Are all riparian buffers vegetated?	No	1	1	1	1	0	1	0
28	Are vegetated riparian buffer and a water quality protection plans in place?	Yes	0	0	0	0	0	0	0
29	Is there urbanized land within riparian buffer?	Yes	1	1	1	1	1	1	1
30	Is a NPDES stormwater permit required for the urbanized areas?	Yes	0	0	0	0	0	0	0
31	Are voluntary water quality protection plans in place for each urbanized area?	No	1	1	1	1	1	1	1
32	Is there industrial land use within riparian buffer?	Yes	1	1	1	1	1	1	1
33	Is NPDES stormwater permit required for industrial areas?	Yes	0	0	0	0	0	0	0
34	Are voluntary water quality protection plans in place for each industrial area?	No	1	1	1	1	1	1	1
35	Are there livestock present?	Yes	1	0	1	0	0	1	0
36	Is there livestock confinement present?	Yes	1	0	1	0	0	1	0
37	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0	0
38	Are any row crops (corn, milo, soybeans) present?	Yes	0	0	1	1	0	1	0
39	Are water quality protection plans in use for each row crop production?	No	0	0	1	1	0	1	0
40	Are any orchards present?	No	0	0	0	0	0	0	0
41	Are water quality protection plans in use for each orchard?	Yes	0	0	0	0	0	0	0
42	Is there any small grain (wheat, oats, barley) production?	Yes	0	0	1	1	0	1	0
43	Are water quality protection plans in use for each small grain production?	No	0	0	1	1	0	1	0
44	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	No	0	0	0	0	0	0	0
45	Is a general watershed water quality protection plan in use?	Yes	0	0	0	0	0	0	0
46	Are any point source discharges within 16 miles upstream of intake?	No	1	1	1	0	1	0	1
47	Is pretreatment required at any of the point sources?	Yes	1	1	1	1	1	0	1

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**
Diversion Id's: **999**
Status: **Accepted**
Submit Date: **2002-10-03 11:00:27**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
C.h. White Sons	2001107	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Did Not Receive Any Comments

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**
Diversion Id's: **999**
Status: **Accepted**
Submit Date: **2002-10-03 11:00:27**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Did Not Receive Any Comments			

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**
Diversion Id's: **999**
Status: **Accepted**
Submit Date: **2002-10-03 11:00:27**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **EMPORIA, CITY OF**
Assessment Area: **979**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		